

AMENDMENTSIn the Claims

Please amend the claims as follows.

1. (Cancelled)

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Currently Amended) ~~The method of claim 4~~ A method comprising:

(a) receiving frames from a plurality of ring networks at a single network element;

(b) monitoring said frames at a single network element for a condition indicative of a failure in one of said plurality of ring networks;

(c) detecting a failure in one of said plurality of ring networks, wherein the act of said detecting ~~[[a]]~~ said failure is performed by comprises reading a portion of a frame;

(d) determining which ring network among said plurality of ring networks is failing;  
and

(e) rerouting frames of the failing ring network.

6. (Original) The method of claim 5 wherein said portion of a frame is an overhead section of a Synchronous Optical Network (SONET) Synchronous Transport Signal (STS).

7. (Original) The method of claim 6 wherein said portion of a frame includes the K-Bytes of a SONET STS.

8. (Original) The method of claim 7 wherein the act of rerouting frames is in accordance with the Automatic Protection Switching (APS) protocol.

9. (Original) The method of claim 4 wherein said plurality of ring networks are Synchronous Optical Network (SONET) Bidirectional Line Switched Ring (BLSR) networks.

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Original) A computer-readable medium comprising:

computer-readable program code for causing a network element to receive a frame from a first ring network;

computer-readable program code for causing said network element to receive a frame from a second ring network;

computer-readable program code for causing said network element to detect a failure condition in said first ring network;

computer-readable program code for informing a program designated to support said first ring network of said failure condition; and

computer-readable program code for processing said failure condition.

14. (Original) The computer-readable medium of claim 13 wherein said first ring network and said second ring network are Synchronous Optical Network (SONET) ring networks.

15. (Original) The computer-readable medium of claim 13 wherein said first ring network is a Synchronous Optical Network (SONET) Bidirectional Line Switched Ring (BLSR) network.

16. (Currently Amended) A network element comprising:

a first line interface of said network element coupled to a first ring network;

a second line interface of said network element coupled to a second ring network;

a cross-connect device of said network element, said cross-connect device including a computer program for monitoring information from said first ring network and said second ring network; and

wherein said computer program monitors said information for conditions indicative of a failure in said first ring network or said second ring network.

17. (Original) The network element of claim 16 wherein said first ring network and said second ring network are Synchronous Optical Network (SONET) Bidirectional Line Switched Ring (BLSR) networks.

18. (Cancelled)

19. (Cancelled)

20. (New) A network element comprising:  
a processor;  
a plurality of network interfaces, each of said network interfaces coupled to a one of a plurality of ring networks and to said processor;  
computer readable medium coupled to said processor; and  
computer code, encoded in said computer readable medium, configured to cause said processor to:  
receive frames from said plurality of ring networks;  
monitor said frames for a condition indicative of a failure in one of said plurality of ring networks;  
detect a failure in one of said plurality of ring networks, wherein said detecting said failure comprises reading a portion of a frame;  
determine which ring network among said plurality of ring networks is failing;  
and  
reroute frames of said failing ring network.

21. (New) The network element of claim 20, wherein said portion of a frame is an overhead section of a Synchronous Optical Network (SONET) Synchronous Transport Signal (STS).

22. (New) The network element of claim 21, wherein said portion of a frame includes said K-Bytes of a SONET STS.

23. (New) The network element of claim 22, wherein computer code configured to cause said processor to reroute frames of said failing ring network is further configured to cause said processor to reroute frames of said failing ring network in accordance with said Automatic Protection Switching (APS) protocol.

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24. (New) The network element of claim 23, wherein said plurality of ring networks are Synchronous Optical Network (SONET) Bidirectional Line Switched Ring (BLSR) networks.

25. (New) A computer program product comprising:  
a first set of instructions, executable on a computer system, configured to cause a single network element to receive frames from a plurality of ring networks;  
a second set of instructions, executable on said computer system, configured to monitor said frames for a condition indicative of a failure in one of said plurality of ring networks;  
a third set of instructions, executable on said computer system, configured to detect a failure in one of said plurality of ring networks, wherein said detecting said failure comprises reading a portion of a frame;  
a fourth set of instructions, executable on said computer system, configured to determine which ring network among said plurality of ring networks is failing;  
a fifth set of instructions, executable on said computer system, configured to reroute frames of said failing ring network; and  
computer readable media, wherein said computer program product is encoded in said computer readable media.

26. (New) The computer program product of claim 25, wherein said portion of a frame is an overhead section of a Synchronous Optical Network (SONET) Synchronous Transport Signal (STS).

27. (New) The computer program product of claim 26, wherein said portion of a frame includes said K-Bytes of a SONET STS.

28. (New) The computer program product of claim 27, wherein said fifth set of instructions is further configured to reroute frames of said failing ring network in accordance with said Automatic Protection Switching (APS) protocol.

29. (New) The computer program product of claim 28, wherein said plurality of ring networks are Synchronous Optical Network (SONET) Bidirectional Line Switched Ring (BLSR) networks.

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30. (New) A network element comprising:  
means for receiving frames from a plurality of ring networks at said network element;  
means for monitoring said frames for a condition indicative of a failure in one of said plurality of ring networks;  
means for detecting a failure in one of said plurality of ring networks, wherein said detecting said failure comprises reading a portion of a frame;  
means for determining which ring network among said plurality of ring networks is failing; and  
means for rerouting frames of said failing ring network.

31. (New) The network element of claim 30 wherein said portion of a frame is an overhead section of a Synchronous Optical Network (SONET) Synchronous Transport Signal (STS).

32. (New) The network element of claim 31 wherein said portion of a frame includes said K-Bytes of a SONET STS.

33. (New) The network element of claim 32 wherein said means for rerouting frames comprises means for rerouting frames in accordance with said Automatic Protection Switching (APS) protocol.

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Ont 34. (New) The network element of claim 33 wherein said plurality of ring networks are Synchronous Optical Network (SONET) Bidirectional Line Switched Ring (BLSR) networks.